

UNEMPLOYMENT, FEBRUARY 1978 PRELIMINARY ESTIMATES

(Including revised estimates for the period August 1976 to November 1977)

INQUIRIES

If you want to know more about these statistics ring Mr Max Griffiths Canberra 526654 or our State Office, or write to Information Services, ABS, P.O. Box 10, Belconnen, A.C.T. 2616

For copies of this publication contact Information Services, Canberra 526627 or State offices.

MAIN FEATURES

Note: Survey estimates are subject to sampling variability, as explained in paragraphs 21 to 24 below. Standard errors of estimates are shown in the tables.

- Between November 1977 and February 1978 the number of unemployed persons is estimated to have increased by 130,200, compared with an increase of 90,800 in the period November 1976 to February 1977 (but see paragraph 20 regarding the change in timing of the surveys).
- In February 1978 an estimated 395,800 persons (235,400 males, 160,300 females) were unemployed, looking for full-time work, representing 7.3 per cent of the full-time labour force.
- Of these, 147,000 were aged 15 to 19 years and 248,800 were aged 20 years and over.
- 81,300 persons (19,500 males, 61,800 females) were unemployed, looking for part-time work (8.5 per cent of the part-time labour force).

EXPLANATORY NOTES

Introduction

This bulletin contains preliminary unemployment estimates derived from the population survey, which is now being conducted monthly. Previously, surveys were conducted in February, May, August and November each year. More detailed estimates are published in *The Labour Force (Preliminary)* (6202.0) and *The Labour Force* (6203.0).

The Population Survey

2. The survey is based on a multi-stage area sample of private dwellings (about 30,000 houses, flats, etc.) and non-private dwellings (hotels, motels, etc.), the information being obtained from the occupants of selected dwellings by carefully chosen and specially trained interviewers. Interviews are generally conducted during the second and third weeks of each month. The information obtained relates to the week prior to the interview (i.e. the survey week). Before February 1978

the interviews were spread over four weeks, chosen so that the survey weeks generally fell within the limits of the calendar month.

Definition

3. For purposes of the survey, unemployed persons are those aged 15 years and over who were not employed during the survey week and:

- (a) had actively looked for full-time or part-time work at any time in the four weeks up to the end of the survey week and:
 - (i) were available for work in the survey week, or would have been available except for temporary illness (i.e. lasting for less than four weeks to the end of the survey week); or
 - (ii) were waiting to start a new job within four weeks from the end of the survey week and would have started in the survey week if the job had been available then;

or

- (b) were waiting to be called back to a full-time or part-time job from which they had been stood down without pay for less than four weeks up to the end of the survey week (including the whole of the survey week) for reasons other than bad weather or plant breakdown.

This definition of unemployed persons conforms closely to that recommended by the Eighth International Conference of Labour Statisticians (1954).

Revision of Series

4. Because the February 1978 estimates are based on revised population estimates derived from the results of the 1976 Population Census and were obtained by using a new sample and new questionnaire, they are not comparable with those in previous issues of this publication.

5. In order to provide a series for earlier periods as comparable as possible with the February 1978 estimates, the unemployment estimates for August 1976 to November 1977 have been revised. Estimates for

Australia from August 1976 are shown in Table 1. Estimates for States and Territories for November 1977 and February 1978 are shown in Table 2. State and Territory estimates for earlier periods are being revised and will be available on request.

6. Estimates for employed persons and the civilian labour force have been increased by the adoption of new population benchmarks and the use of a new sample and questionnaire. Estimates for February 1978 and revised estimates for earlier periods are being prepared and will be published in *The Labour Force, February 1978 (Preliminary)* (6202.0).

7. Information concerning the methods used in the revision of the unemployment estimates is given in the following paragraphs.

Population Benchmarks

8. The population survey estimates are calculated in such a way as to conform to the independently estimated distribution of the population by age and sex. As a consequence, whenever these population "benchmarks" are revised it becomes necessary to revise the labour force estimates also.

9. The survey estimates for the period from August 1976 have been revised by using population benchmarks based on the results of the 1976 Population Census, adjusted for underenumeration. For information concerning these population estimates see *Population and Vital Statistics (Preliminary) : December Quarter 1976* (3211.0). For November 1977 the estimate of the civilian population 15 years of age and over was increased by 180,100 persons (from 10,153,100 to 10,333,200).

10. Because the population estimates now exclude short-term overseas arrivals and departures there has been some effect on the quarter-to-quarter movements in the labour force estimates, but for unemployment the differences are generally not significant.

The New Sample and New Questionnaire

11. In the previous issue of this publication attention was drawn to the fact that a new sample based on the 1976 Population Census would be used in the February 1978 survey and that the survey data would be obtained by means of a new questionnaire.

12. The new sample was selected in order to reflect the changes in the distribution of the population shown by the 1976 Population Census results. The questionnaire, which had undergone little change since 1960 except for the inclusion in 1975 of additional questions on job-seeking, was revised to provide more accurate and more detailed information concerning the labour force.

13. Copies of both the new questionnaire and the one previously used, together with a description of the main features of the new questionnaire, are contained in *Questionnaires used in the Labour Force Survey* (6232.0) issued at the same time as this bulletin.

14. In order to provide an indication of the effects of the new sample and questionnaire, two surveys were undertaken in November 1977, one using the old sample and questionnaire and the other using the new sample and questionnaire. The surveys were carried out during the same four-week period. Because of the costs of conducting two surveys concurrently, the sample size of both November surveys was reduced to one-half of one per cent of the population (from the normal two-thirds of one per cent). The results of the two surveys have been used to make adjustments to results of surveys from August 1976 to August 1977 to make them as nearly comparable as possible with results of surveys on the basis now in use.

15. It was expected that the estimates derived from the new sample and questionnaire would differ to some extent from those derived from the old sample and questionnaire, for the following reasons:

- (a) Whilst the new questionnaire was designed to collect data according to basically the same definitions as previously, it was not unexpected that improved wording of some questions aimed at collecting more accurate data would result in some changes.
- (b) A different sample can be expected to produce a different result.
- (c) Dwellings in the old sample had been included in the survey for at least three occasions and up to a maximum of nine, whilst all dwellings in the new sample were included in the survey for the first time. From experience with the old questionnaire it is considered likely that there could be differences in the quality of the data provided by new entrants into the survey and those who had been surveyed several times.

16. In revising the unemployment estimates for the period August 1976 to November 1977 the old estimates were first recalculated by incorporating revised population benchmarks, as explained in paragraphs 8 to 10. These adjusted estimates were then further revised to take account of the effect of the new sample and questionnaire. The methods used are summarised below.

Estimates for November 1977

17. *Unemployed persons looking for full-time work.* It was considered that the new questionnaire had relatively little effect on the estimates for this category and the November 1977 estimates were obtained by averaging the results of the two November surveys. The amalgamation of the two results produced estimates based on a sample of one per cent of the population.

18. *Unemployed persons looking for part-time work.* In the old questionnaire only one question was asked in order to establish whether persons had been looking for work, followed by a question on whether full-time or part-time work was being sought. In the new questionnaire two questions were asked: whether they had been looking for full-time work and, if not, whether they had been looking for part-time work. It is clear that

the considerable increase in the estimated number of unemployed persons seeking part-time work resulted from the inclusion of a separate question on this aspect of unemployment. The estimates obtained by using the new sample and questionnaire were therefore adopted.

Estimates for periods before November 1977.

19. The survey figures for August 1976 to August 1977, adjusted to new benchmarks as in paragraph 16, were revised by applying to them factors derived from the November 1977 results. The ratio between the estimate adopted for November (see paragraphs 17 and 18) and the adjusted estimate based on new benchmarks was applied to each of the earlier adjusted estimates.

Comparability of Series

20. When comparing unemployment estimates for February 1978 with those for earlier periods it should be noted that with the introduction of monthly surveys the interviews are now conducted during a two-week period, whereas formerly the period was four weeks. (See paragraph 2.) This change of timing may affect the level of the figures for any month, but particularly for months such as February, during which unemployment may be changing rapidly.

Reliability of the Estimates

21. Since the estimates in this publication are based on information obtained from occupants of a sample of dwellings they are subject to sampling variability; that is, they may differ from the figures that would have been produced if all dwellings had been included in the survey. One measure of the likely difference is given by the *standard error*, which indicates the extent to which an estimate might have varied by chance because only a sample of dwellings was included in the survey. There are about two chances in three that a sample estimate will differ by less than one standard error from the figure that would have been obtained if all dwellings had been included in the survey, and about nineteen chances in twenty that the difference will be less than two standard errors.

22. The standard errors are shown in the tables. The size of the standard error increases with the level of the estimates so that the larger the estimate the larger the standard error. For Australia, ranges of standard errors are shown for months other than the latest month. It should be noted, however, that the larger the sample estimate the smaller will be the standard error in percentage terms. Thus, larger sample estimates will be relatively more reliable than smaller estimates. An example of the use of the standard errors is as follows. The estimate of unemployed persons looking for full-time work in February 1978 (395,800) has a standard error of about 5,300 and therefore there are about two chances in three that the value that would have been produced if all dwellings had been included in the survey will fall within the range 390,500 to 401,100, and about nineteen chances in twenty that the value will fall within the range 385,200 to 406,400.

23. A change in the level of an estimate between two periods of time is also subject to sampling

variability. Details of standard errors of quarter-to-quarter changes for the period August 1976 to November 1977 (old series) can be obtained from the Technical Note included in the November 1977 issue of *The Labour Force* (6203.0). These standard errors will be sufficiently accurate for use with the revised series. The standard error of the increase between November 1977 and February 1978 in the number of unemployed persons looking for full-time work is 5,900 and therefore there are about nineteen chances in twenty that if all dwellings had been included in the surveys the increase would have been within the range 106,600 to 130,200.

24. Further details on the sampling variability of the estimates will be published in the February 1978 issue of *The Labour Force* (6203.0).

Seasonally Adjusted Estimates

25. As explained in previous issues of this publication, the move to the higher level of unemployment since 1974 appears to have been accompanied by shifts in the pattern of seasonal variation. For this reason the publication of seasonally adjusted quarterly figures of unemployment was suspended as from November 1977. The matter will be kept under review. Calculation of seasonally adjusted monthly figures will not be possible until results for two or three years are available.

Comparability with Commonwealth Employment Service Figures

26. The survey estimates of unemployed persons looking for full-time work may differ from the number of persons registered with the Commonwealth Employment Service (CES) as not employed, awaiting placement in full-time employment, for a number of reasons, including the following:

- (a) The survey estimates include some unemployed persons (particularly females) who did not register with the CES.
- (b) They exclude persons who worked for one hour or more during the survey week, although they may have been registered with the CES – for example because they became unemployed during the week or worked for only short periods
- (c) they exclude persons registered as unemployed who found jobs or who were no longer looking for work but did not notify the CES of their changed situation
- (d) they represent averages over a period (see paragraph 2), whereas the CES figures refer to numbers registered on the Friday nearest the end of the month. This is particularly important (i) for November where the CES figures include more unemployed school leavers than the survey estimates, and (ii) for those months such as February 1978 where the Friday nearest the end of the month falls in the following month
- (e) they are subject to sampling variability. (See paragraphs 21 to 24).

Related Publications

27. Users may also wish to refer to the following publications which are available on request:

The Labour Force (Preliminary) (6202.0)
The Labour Force (6203.0)

All publications produced by the ABS are listed in *Catalogue of Publications 1977* (1101.0), which is available free of charge from any ABS office.

NOTE. Any discrepancies between totals and sums of components in the tables are due to rounding.

R. J. CAMERON
Australian Statistician

TABLE 1. UNEMPLOYED PERSONS (a) (Preliminary Estimates)

Month	Number ('000)									
	Looking for full-time work						Unemployment rate (b) (per cent)			
	Aged 15-19 years			Looking for part-time work			Looking for full-time work			Looking for part-time work
	Looking for first job	Total	Aged 20 years and over	Total	Looking for part-time work	Total	Aged 15-19 years	Aged 20 years and over	Total	Total
MALES										
1976 -										
August	(c)	39.3	103.4	142.7	13.9	156.6	12.1	3.0	3.7	7.8
November	(c)	38.7	98.9	137.6	17.6	155.2	12.3	2.8	3.6	9.2
1977 -										
February	21.7	57.1	109.0	166.1	20.0	186.1	16.1	3.1	4.3	10.9
May	13.1	50.9	112.1	163.0	21.7	184.7	14.8	3.2	4.2	10.8
August	12.5	51.0	117.5	168.5	21.6	190.1	15.4	3.3	4.4	9.1
November	19.9	48.1	117.1	165.2	18.0	183.2	15.7	3.3	4.3	7.4
1978 -										
February	40.2	74.6	160.8	235.4	19.5	255.0	20.0	4.6	6.0	9.4
Standard error of -										
February estimates (d)	2.1	2.7	3.7	4.5	1.5	4.6	0.7	0.1	0.1	0.7
Other estimates (d)	1.3-1.6	2.1-2.4	3.1-3.3	3.4-3.9	1.3-1.6	3.7-4.0	0.6-0.7	0.1	0.1	0.6-0.8
FEMALES										
1976 -										
August	(c)	43.9	50.2	94.2	42.0	136.1	16.1	4.2	6.4	5.8
November	(c)	41.9	45.5	87.4	38.9	126.3	15.8	3.8	6.0	5.2
1977 -										
February	25.7	61.1	63.3	124.4	61.8	186.2	20.9	5.1	8.1	8.3
May	16.1	51.4	61.4	112.8	56.3	169.1	18.2	4.9	7.3	7.4
August	16.6	58.2	56.6	114.8	54.4	169.3	20.7	4.5	7.5	7.2
November	19.0	51.9	60.3	112.2	51.4	163.6	19.2	4.9	7.5	6.5
1978 -										
February	40.5	72.4	87.9	160.3	61.8	222.1	23.6	7.1	10.4	8.2
Standard error of -										
February estimates (d)	2.1	2.6	2.9	3.8	2.5	4.2	0.8	0.2	0.2	0.3
Other estimates (d)	1.4-1.8	2.1-2.5	2.2-2.5	2.9-3.4	2.1-2.5	3.3-4.0	0.8	0.2	0.2	0.3
PERSONS										
1976 -										
August	(c)	83.3	153.6	236.9	55.8	292.7	14.0	3.3	4.5	6.2
November	(c)	80.5	144.4	225.0	56.5	281.5	13.9	3.1	4.2	6.0
1977 -										
February	47.4	118.2	172.2	290.5	81.8	372.3	18.3	3.6	5.3	8.8
May	29.2	102.3	173.6	275.8	78.0	353.8	16.3	3.6	5.1	8.1
August	29.1	109.2	174.1	283.3	76.0	359.3	17.8	3.6	5.2	7.9
November	38.9	100.0	177.4	277.4	69.4	346.8	17.4	3.8	5.2	6.7
1978 -										
February	80.6	147.0	248.8	395.8	81.3	477.0	21.6	5.2	7.3	8.5
Standard error of -										
February estimates (d)	2.9	3.7	4.4	5.3	2.9	5.7	0.5	0.1	0.1	0.3
Other estimates (d)	1.8-2.3	2.9-3.2	3.6-3.9	4.3-4.8	2.3-2.9	4.5-5.2	0.5	0.1	0.1	0.3

(a) Aged 15 years and over. For definition see paragraph 3, page 1. (b) The number of unemployed in each group as a percentage of the estimated labour force (i.e. employed plus unemployed) in the same group. (c) Not available. (d) For information on standard errors see paragraphs 21 to 24, page 3.

TABLE 2. UNEMPLOYED PERSONS (a), STATES AND TERRITORIES (Preliminary estimates)

State or Territory	Number ('000)					Unemployment rate (b) (per cent)				
	Looking for full-time work					Looking for full-time work				
	Aged 15-19 years	Aged 20 years and over	Total	Looking for part-time work	Total	Aged 15-19 years	Aged 20 years and over	Total	Looking for part-time work	Total
New South Wales –										
November 1977	33.8	63.3	97.1	22.6	119.7	18.0	3.7	5.2	6.5	5.4
February 1978	53.9	90.0	143.9	27.2	171.1	23.7	5.3	7.5	8.2	7.6
Standard error of February 1978 estimates (c)	2.5	3.2	3.9	2.0	4.1	1.1	0.2	0.2	0.6	0.2
Victoria –										
November 1977	24.6	47.1	71.7	19.8	91.5	17.4	3.6	5.0	6.9	5.3
February 1978	32.2	62.0	94.1	19.6	113.7	19.2	4.8	6.4	7.9	6.6
Standard error of February 1978 estimates (c)	2.1	2.7	3.4	1.7	3.6	1.3	0.2	0.2	0.7	0.2
Queensland –										
November 1977	16.5	27.9	44.4	9.5	53.9	16.3	4.1	5.7	6.4	5.8
February 1978	24.3	41.9	66.2	13.0	79.1	21.1	6.1	8.3	9.1	8.4
Standard error of February 1978 estimates (c)	1.3	1.4	1.6	1.0	1.7	1.1	0.2	0.2	0.7	0.2
South Australia –										
November 1977	11.9	17.3	29.2	7.6	36.8	18.6	3.9	5.8	7.3	6.1
February 1978	15.7	22.1	37.8	7.6	45.4	22.0	5.1	7.5	7.8	7.6
Standard error of February 1978 estimates (c)	0.9	1.0	1.2	0.7	1.3	1.3	0.2	0.2	0.7	0.2
Western Australia –										
November 1977	7.5	14.2	21.7	5.9	27.6	14.3	3.5	4.8	6.0	5.0
February 1978	12.5	20.4	32.8	9.0	41.8	20.0	5.0	7.0	9.9	7.4
Standard error of February 1978 estimates (c)	0.8	1.0	1.2	0.7	1.3	1.3	0.2	0.3	0.8	0.2
Tasmania –										
November 1977	3.8	3.7	7.5	2.0	9.5	17.8	2.8	4.9	7.4	5.3
February 1978	5.7	5.9	11.6	1.8	13.4	22.2	4.6	7.5	7.1	7.5
Standard error of February 1978 estimates (c)	0.4	0.4	0.4	0.3	0.4	1.3	0.3	0.3	1.2	0.2
Northern Territory –										
November 1977	*	*	1.9	*	2.2	*	*	4.7	*	4.5
February 1978	*	3.2	3.9	*	4.5	*	8.8	9.9	*	9.5
Standard error of February 1978 estimates (c)	..	0.4	0.5	..	0.5	..	1.1	1.2	..	1.0
Australian Capital Territory –										
November 1977	*	2.8	4.0	1.6	5.7	*	3.6	5.0	8.9	5.7
February 1978	2.0	3.5	5.5	2.5	8.0	26.0	4.4	6.3	17.2	7.9
Standard error of February 1978 estimates (c)	0.3	0.4	0.4	0.3	0.5	3.7	0.5	0.5	2.1	0.5

(a) For definition see paragraph 3, page 1. (b) See note (b) to Table 1. (c) See note (d) to Table 1.

*Subject to sampling variability too high for most practical uses.